

**REMARKS**

Claims 1-15 are all the claims pending in the application, as dependent claims 14 and 15 are hereby added. This Amendment, submitted in response to the Office Action dated November 7, 2006, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Dependent claim 3 is objected to for minor informalities. The informalities noted by the Examiner have been corrected, thus Applicant requests that the Examiner withdraw the objection.

Claims 9-12 stand rejected under 35 U.S.C. § 112, second paragraph, for various informalities. The informalities noted by the Examiner have been corrected, thus Applicant requests that the Examiner withdraw the rejection.

Claim 13 stands rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant herein amends claim 13 and respectfully submits that amended claim 13 is directed to patentable subject matter. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection.

Claims 1-5 and 8 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Glingener et al. (U.S. Pat. App. Pub. No. 2003/0072513; hereinafter “Glingener”). Applicant respectfully traverses this rejection.

Independent claim 1 now recites, in part:

a dispersion compensation unit which receives the incoming optical light wave, splits the incoming optical light wave into a first optical signal and a second optical signal and outputs an

equalized optical light wave, wherein the dispersion compensation unit comprises a plurality of compensation stages, wherein each compensation stage of the plurality of compensation stages comprises a feed-forward signal tap which taps the second optical signal and provides a feed-forward signal and a tunable phaseshifter which tunes the second optical signal, and wherein the plurality of compensation stages are connected in series with each connection comprising a first waveguide which receives the first optical signal and a second waveguide which receives the second optical signal

Glingener discloses an apparatus for compensating polarization mode dispersion, having waveguides, e.g., 35 and 36, and compensation devices 26 and 27.<sup>1</sup> However, Glingener fails to teach or suggest all of the claimed features noted above. Instead, in Glingener, a light wave is input into waveguide 13, which is coupled to waveguide 35. Waveguide 35 is connected in series with the polarization control device 28; the polarization control device 28 is then connected in series to waveguide 36. Waveguide 36, in turn, is connected to birefringement element 29, which is connected to waveguide 42. Applicant notes that each of the above-cited elements in Glingener are connected in series, and the incoming optical signal is not split into a first and second optical signal. Thus, Glingener cannot possibly teach or suggest compensation stages connected such that each connection comprises a first waveguide which receives the first optical signal and a second waveguide which receives the second optical signal.

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<sup>1</sup> See Glingener, FIG. 2.

Accordingly, Applicant submits that independent claim 1 is patentable over Glingener for at least the reasons stated above. Further, Applicant submits that dependent claims 2-5 and 8 are also patentable over Glingener, at least by virtue of their respective dependency on claim 1.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Glingener in view of Barwicz. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Glingener in view of Moeller et al. (U.S. Pat. No. 6,538,787). Claims 9-11 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Glingener in view of Yan et al. (U.S. Pat. No. 7,067,795; hereinafter “Yan”). Claim 12 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Glingener in view of Yan and in further view of Sobiski (U.S. Pat. App. Pub. No. 2002/0177912). Applicant respectfully traverses these rejections.

Applicant submits that none of the applied references, either alone or in combination, cure the deficiencies of Glingener noted above regarding independent claim 1.

Further, Applicant submits that independent claims 9 and 13 are patentable over the applied references for reasons analogous to those stated above regarding independent claim 1. Further, Applicant submits that claims 6, 7 and 10-12 are all patentable over the applied references, at least by virtue of their respective dependency on claims 1 and 9. Finally, Applicant submits that new dependent claims 14 and 15 are patentable over the applied references, at least by virtue of their respective dependency on independent claims 1 and 9.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

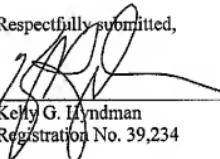
AMENDMENT UNDER 37 C.F.R. §1.111  
Application No. 10/715,557

Docket No. Q78455

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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